Product Description

The BR1 Backreflection Meter is a user-friendly instrument developed with extremely stable optics for precise measurement of backreflection, insertion loss and power. The BR1 features up to four built-in laser sources at wavelengths of 850, 1300, 1310, 1490, 1550, 1625 or 1650 nm (depending on fiber type).

The BR1 is capable of ultra-stable Insertion Loss, Power, and Backreflection measurements. With a Backreflection measurement accuracy of ±0.4 dB and an Insertion Loss accuracy of ±0.05 dB, the BR1 is the perfect tool for reliable & accurate measurements.

The BR1 can be used with our free easy to use GMS software to help automate test configurations, data logging, and report generation for both short and long term testing needs. The multimode version of the BR1 complies with the encircled flux launch conditions outlined in IEC 61280-4-1 and TIA/EIA 526-14-B.*

KEY FEATURES

- Stable BR measurements at low values
- Up to 4 internal lasers
- BR range to -80 dB
- User Friendly

APPLICATIONS

- Component testing
- Connector and patchcord testing
- Incoming inspection
- QA testing

COMPLIANCE

- MM meets IEC 61280-4-1 Encircled Flux Standard
- UL/CSA 61010
- IEC 61010
- FCC Part 15 (Class A)
- EN 61326 (Class A)

IN THE BOX

- BR1 Meter
- AC power cord
- Calibration Certificate
- Calibrated Jumper
- Hybrid Test Jumper
- Detector Cap
- FC Detector Adapter
- MW3 Mandrel Wrap

Optimized for performance

The internal optics of the BR1 are optimized for the type of fiber being tested. In order to reach industry leading specifications for backreflection accuracy and stability, the optical meters are manufactured with dedicated optics for single mode, or multi-mode testing needs.

Touchscreen

The large BR1 touchscreen display allows users to clearly see device under test results. 4 wavelength IL & BR measurements can be performed with simply one tap of the screen.

Production Friendly Software

The meter may be controlled through remote interface (USB or Ethernet) or locally via the user-friendly touch screen display.

The free GMS Software allows the user to configure test profiles, manage test sequences, and export results to preconfigured templates.
Ordering Scheme

1 - Configure Backreflection meter

**Single-mode Version**

**BR1-**

- LASER 1
  - 0: No Laser
  - 1: 1550 nm
- LASER 2
  - 0: No Laser
  - 1: 1490 nm
- LASER 3
  - 0: No Laser
  - 1: 1550 nm
- DETECTOR TYPE
  - 0: Damage

**BR1-D-09FA**

- DETECTOR
  - Front Panel Leave Blank
  - Remote Head

- Up to four lasers may be selected in the single-mode version
- Other wavelengths available upon request

**Multimode Version**

**BR1-8300-D-FA**

- DETECTOR TYPE
  - 2: 3 mm InGaAs
  - 3: 5 mm Ge
- FIBER TYPE
  - 40: 50/125 µm
  - 62: 62.5/125 µm

**Slide Detector adapters**

- More detectors available upon request.
- See more details on pg 84.

**Rackmount Kit**

**2U-RACK-KIT**
BR1  Backreflection Meter

Optical/Electrical Specification

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Single-mode</td>
</tr>
<tr>
<td>Fiber Type (μm)</td>
<td>9/125</td>
</tr>
<tr>
<td>Encircled Flux Standard</td>
<td>N/A</td>
</tr>
<tr>
<td>Operating Wavelengths (nm)</td>
<td>1310 / 1490 / 1550 / 1625 / 1650</td>
</tr>
<tr>
<td>Backreflection Range (dB)</td>
<td>0 to -85</td>
</tr>
<tr>
<td>Backreflection Accuracy (dB)</td>
<td>± 0.4</td>
</tr>
<tr>
<td>Detector Type</td>
<td>2mm InGaAs / 5mm Ge</td>
</tr>
<tr>
<td>Power Range (dBm)</td>
<td>0 to -80 / 0 to -60</td>
</tr>
<tr>
<td>Insertion Loss Accuracy (dB)</td>
<td>± 0.05 (&lt; 5 dB loss)</td>
</tr>
<tr>
<td>Absolute Power Accuracy (dB)</td>
<td>± 0.15 (&gt; 5 dB loss)</td>
</tr>
<tr>
<td>Remote Interface</td>
<td>USB / Ethernet</td>
</tr>
<tr>
<td>Display</td>
<td>5” touch screen</td>
</tr>
<tr>
<td>Input Voltage</td>
<td>100 - 240 V AC, 50 - 60 Hz</td>
</tr>
<tr>
<td>Power Consumption (VA)</td>
<td>60 maximum</td>
</tr>
</tbody>
</table>

Notes:
1. Add 0.2 dB to the spec for every 1 dB below -60 dB (single-mode).
2. Add 0.2 dB to the spec for every 1 dB below -45 dB (multimode).
3. Measured at -20 dBm.

Mechanical/Environmental Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit Dimensions W x H x D (cm)</td>
<td>23.5 x 12 x 32.5</td>
</tr>
<tr>
<td>Shipping Box Dimensions W x H x D (cm)</td>
<td>36.5 x 39 x 53</td>
</tr>
<tr>
<td>Unit Weight (kg)</td>
<td>8</td>
</tr>
<tr>
<td>Total Shipment Weight (kg)</td>
<td>9</td>
</tr>
<tr>
<td>Operating Temperature (°C)</td>
<td>0 to 55</td>
</tr>
<tr>
<td>Storage Temperature (°C)</td>
<td>-40 to 70</td>
</tr>
<tr>
<td>Humidity (Non-condensing) (°C)</td>
<td>Maximum 95% RH from 0 to 40</td>
</tr>
</tbody>
</table>